Page 25, line 20: Delete "it might be possible to" and insert --the stega-cipher can--.

Page 35, line 24: Change "throught" to --through--; replace "in the claims" with --above--.

Page 36, line 8: Change "effficient" to --efficient--.

IN THE ABSTRACT:

Please amend the abstract as follows:

Line 11, change "possesed" to --possessed--.

IN THE CLAIMS:

Please cancel claim 1 and add new claims 25-61 as follows:

25. A method for protecting a digital signal comprising the step of:

a) encoding independent information including a digital watermark into a carrier signal using a random or pseudo-random key

26. The method according to claim 25, wherein the carrier signal includes a stream of digital samples.

27. The method according to claim 25, wherein the carrier signal includes a continuous analog waveform.

28. The method according to claim 25, wherein the digital watermark, includes at least one selected from the group consisting of: rights ownership identification, authorship identification of the encoded carrier signal, ownership identification of a unique copy of the encoded carrier signal, and a serialization code uniquely identifying a copy of the encoded carrier signal.

29. A method for protecting a digital signal comprising:

a) decoding independent information including a digital watermark from a carrier signal using a random or pseudo-random key.

30. The method according to claim 29, wherein the carrier signal includes a stream of digital samples.

31. The method according to claim 29, wherein a carrier signal is composed of a continuous analog waveform.

32. The method according to claim 29, wherein the digital watermark includes at least one selected from the group consisting of: rights ownership identification, authorship identification of the encoded carrier signal, ownership identification of a unique copy of the encoded carrier signal, and a serialization code uniquely identifying a copy of the encoded carrier signal.

33. The method according to claim 29, further comprising the step of:

b) generating a first derivative encoded signal representing the original carrier signal combined with the encoded independent information, including the digital watermark, wherein the first derivative encoded signal is an arbitrarily close approximation of the original carrier signal.

34. The method according to claim 33, further comprising the step of:

c) modifying the first derivative encoded signal to produce a second derivative encoded signal, wherein the second derivative encoded signal differs from the original carrier signal by a greater degree than the first derivative encoded signal differs from the original carrier signal, as measured by an arbitrary signal metric.

35. The method according to claim 33, wherein the changes introduced to the original carrier signal in order to generate the first derivative encoded signal are chosen based on the random or pseudo-random key so that to erase or damage the watermark without using the random or pseudo-random key the first derivative encoded signal must be changed to produce a second derivative encoded signal, wherein the second derivative encoded signal differs from

the original carrier signal by a greater degree than the first derivative encoded signal differs from the original carrier signal, as measured by an arbitrary signal metric.

36. The method according to claim 29, further comprising the step of:

b) decoding a single message bit from a single sample by reading a single bit of the single sample as the message bit.

37. The method according to claim 29, further comprising the step of:

b) decoding a single message bit from a single sample by mapping the single sample into a range of sample values which indicate a particular message bit value.

38. The method according to claim 29, further comprising the step of:

b) decoding a single message bit from a single spectral value by mapping the single spectral value into a range of spectral values which indicate a particular message bit value.

39. The method according to claim 25, further comprising the step of:

b) using a map table to define where watermark information is to be encoded based on random or pseudo-random masks into the carrier signal, wherein the map table is defined such that any index of the map table enables encoding of information.

40. The method according to according to claim 25, further comprising the steps of:

b) selecting a mask set, said mask set including one or more random or pseudo-random series of bits, referred to as masks;

c) selecting a random or pseudo-random start of message delimiter; and

d) selecting independent information to be encoded.

41. The method according to claim 40, further comprising the step of:

e) generating a message bit stream to be encoded such that the stream includes :

1) the random or pseudo-random start of message delimiter,

2) a number of message bytes to follow the message, and

3) the independent information.

42. The method according to claim 41, further comprising the step of:

f) separating an input sample stream into smaller discrete sample windows comprising segments of the input sample stream.

43. The method according to claim 42, further comprising of the step of:

g) using positions within the input sample window and a position within the input stream to index random or pseudo-random masks and compute a mapping function to determine encoding positions and encode digital watermark information into the input sample window.

44. The method according to claim 43, further comprising the step of:

h) computing a spectral transform of the input sample window prior to digital watermark data encoding.

45. The method according to claim 44, further comprising the step of:

i) computing an inverse spectral transform of the encoded spectral transform data after digital watermark data encoding.

46. The method according to claim 29, further comprising the steps of:

b) selecting a mask set, said mask set including one or more random or pseudo-random series of bits, referred to as masks,

c) selecting a random or pseudo-random start of message delimiter; and

d) selecting independent information to be encoded.

47. The method according to claim 46, further comprising the step of:

e) separating an input sample stream into smaller discrete sample windows comprising segments of the input sample stream.

48. The method according to claim 47, further comprising the step of:

f) using positions within the input sample window and a position within the input stream to index random or pseudo-random masks and compute a mapping function to

determine decoding positions and decode digital watermark information into the input sample window.

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49. The method according to claim 48, further comprising the step of:

g) computing a spectral transform of the input sample window prior to digital watermark data decoding.

50. The method according to claim 41, wherein the independent information contains, at least one selected from the group consisting of: a hash value computed on the start of message delimiter, and a digital signature of the start of message delimiter.

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51. The method according to claim 48, further comprising the step of:

g) validating at least one selected from the group consisting of:

(1) a hash value computed on the start of message delimiter, and

(2) a digital signature of the start of message delimiter,

wherein the step g) of validating occurs after the start of message delimiter and the encoded information of said hash value or said digital signature have been decoded and the validation consists of computing an appropriate result using the start of message delimiter, comparing it to a value in the decoded data, and verifying any signature.

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52. The method according to claim 25, further comprising the step of:

b) adding unique data to each individual watermark, rendering it distinct from any other watermark in the same sample stream.

53. The method according to claim 52, further comprising the step of:

c) pre-processing sample windows in the sample stream to be watermarked.

54. The method according to claim 53, further comprising the step of:

d) determining which sample windows will contain the individual digital watermark to be encoded.

55. The method according to claim 54, further comprising the step of: